

distinguishing characters than those above given, still there is something in the look of the two which satisfies me that they are not the same. This sort of *primâ facie* evidence is often as convincing to an entomological eye as more defined and less empirical characters.

[To be continued.]

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XXXVII.—*Additional Observations upon the Genera Aptandra, Cathedra, Liriosma, Leretia, Poraqueiba, and Emmotum.*  
By JOHN MIERS, F.R.S., F.L.S., &c.

APTANDRA.

IN completing the drawing to illustrate this genus, as described in this work (2nd ser. vii. 201), I have been able to add the details since obtained of the structure of its fruit and seed. This information, which fixes beyond doubt the position of *Aptandra* in the system, is derived from the analysis of the only fruit that accompanied a specimen of the *Heisteria tubicina* of Pöppig, which I received from Mr. Spruce. This plant is described by Pöppig in his 'Nov. Gen.' iii. 35, and is figured by him in plate 241, but only from immature fruit. We have satisfactory proof that it really belongs to *Aptandra* by the presence of an ovary in the same specimen, which is somewhat advanced in growth, and around the style of which the peculiar monadelphous staminal tube still remains, which is precisely similar to that I have shown in *Aptandra Spruceana*. The calyx, which in the flower is barely a line long, in the fruit grows to a very large size, becoming campanular with an entire spreading mouth, and it half envelopes the dry globular drupe, which is nearly an inch in diameter. Its pericarp is smooth, coriaceous, indehiscent, half a line in thickness, unilocular, and monospermous: the nucleus, in this instance, was greatly shrivelled, and in consequence much corrugated, and was covered with mildew, so that the nature of its decayed seminal envelopes could not be ascertained: a firm integument adhered closely to the pericarp, which appeared to me to be the external tunic of the seed rather than of the endocarp; but of this I cannot be sure: the nucleus adhered to the bottom of the cell by a round cicatrix, which appears to be the remnant of the free central placenta, upon which the ovules are attached in the floral ovary. The nucleus consisted of a homogeneous fleshy substance, which, after being well macerated and cut open transversely, showed no signs of any embryo; but in its centre was a large vacuity, the sides of which were pressed together by the shrinking of the mass: this vacuity presented a very polished surface; and from it several rays branched towards the circumference, leaving so many fleshy

wedges between the radiating spaces; near the summit these spaces terminated in one point, and in the solid part above this I discovered with some difficulty a very minute embryo, about half a line in diameter, consisting of two distinct, orbicular, flat, foliaceous cotyledons, with a notch on the margin for the insertion of the radicle, which was unfortunately lost in its extraction; but the polished indentation of the entire embryo, left in the substance of the albumen, indicated its shape and relative size in regard to the cotyledons. The evidence of this structure is therefore nearly complete. In the diminutive size of the embryo, imbedded in the summit of the albumen, this structure quite agrees with that of *Heisteria* and other genera of the *Olacaceæ*; and it may be further remarked that I have observed in the albumen of *Heisteria* and *Liriosma* a constant large vacant space, running from its base up its centre, and terminating in the more solid part below the summit, in which the small embryo is imbedded.

From the structure of the ovary, fruit, and seed, combined with other characters, it is manifest that *Aptandra* is nearly allied to the *Olacaceæ*, agreeing with that order in the form and æstivation of the calyx and petals. The singular enlargement of the calyx, which ultimately half envelopes the fruit, occurs in a very similar manner in *Olox*, *Heisteria*, and some other genera; but *Aptandra* is very distinct from every genus of that family in the remarkable confluence of the stamens into a long, thick, monadelphous tube, which embraces the style, and bears a number of extrorse anther-cells, adnate below its summit, just as in *Canella*, but which burst by the deflection of their outer valves, as in *Diclidanthera*.

This striking peculiarity might well claim the right of *Aptandra* to be the type of a distinct family allied to *Olacaceæ*; but I will not venture to propose it until other analogous genera are discovered: in the meantime it may remain as a suborder of that family, bearing the name of *Aptandrea*.

To the generic characters of *Aptandra*, as before given (*loc. cit.* p. 201), we may therefore now add:—

*Drupa magna, sicca, globosa, calyce persistente aucto cupulari laxe semicineta, pericarpio coriaceo indehiscente, 1-locularis, 1-sperma. Semen imo loculi affixum; integumenta ignota; albumen copiosum, carnosum, a basi ultra medium radiatim excavatum; embryo parvus, in illo summum versus sepultus, cotyledonibus orbicularibus, valde foliaceis, radícula brevi tereti supera 4-plo longioribus.*

1. *Aptandra Spruceana*, *loc. cit.* vii. 202; *Contrib. Bot.* i. 3. tab. 1.

2. *Aptandra tubicina*, Bth. MSS.—*Heisteria tubicina*, Pöp. Nov. Gen. iii. 35. tab. 241 ;—foliis ellipticis, apice repente lineari-attenuatis, utrinque glabris, subtus ferrugineo-punctulatis, rachi nervisque anastomosantibus lævibus et rubellis, venis valde reticulatis ; paniculis axillaribus, petiolo 4-plo longioribus, folio 7-plo brevioribus, pedicellis in fructu elongatis et incrassatis, in flore capillaribus ; drupa globosa, calyce aucto laxe campanulato semi-inclusa.—Prope Panurè, Rio Uaupès, in Brasilia Septentr. (Spruce, 2741).

This is described as a short tree with lax branches ; the axils are about  $1\frac{1}{2}$  inch apart ; the leaves are  $5\frac{1}{2}$  inches long and 2 inches wide, upon a petiole 3 lines in length. The inflorescence is about  $\frac{3}{4}$  inch long ; the pedicels, which are capillary in flower, become thickened in fruit, especially towards their summit, and are upwards of an inch in length ; the antheriferous tube, which I have represented in the drawing, exactly resembles that of the preceding species. The fruit is described in a preceding page.

3. *Aptandra Benthamiana*, n. sp. ;—ramulis fuscis, angulatis ; foliis ellipticis, versus summum gradatim angustioribus, apice angusto et rotundato, utrinque opacis, lurido-fuscescentibus, coriaceis, crassiusculis, nervis omnino immersis et vix distinguendis, margine undulato incrassato haud reflexo ; paniculis in apicibus ramorum axillaribus, late ramosis, folio dimidio brevioribus ; floribus parvulis, numerosis, pedicellis longissimis, capillaribus.—Prope San Carlos, Rio Negro, Brasilia Septentr. (Spruce, 3000).

Its leaves are 3 inches long and 1 inch broad, on a terete petiole 5 lines in length ; the inflorescence is 1 inch long,  $1\frac{1}{2}$  inch broad, the capillary pedicels measuring 6 lines.

4. *Aptandra liriosmoides*, Spruce MSS., n. sp. ;—foliis oblongis vel lanceolato-oblongis, imo obtusis, apice subattenuatis, obtusiusculis, et mucronulatis, glaberrimis, superne opacis, fusco-viridibus, inferne e punctulis numerosissimis cinereo-albescentibus, margine ferrugineo ; nervis sese intra marginem arcuatis, tenuiculis, utrinque parce prominulis, rachi superne sulcato et albido, subtus prominente ; paniculis late ramosissimis, folio tertio brevioribus ; floribus parvulis, pedicellis capillaribus.—Prope Panurè, Rio Uaupès, Brasilia Septentr. (Spruce).

The axils of the branches are shorter than in the other species, being from  $\frac{1}{4}$  to  $\frac{3}{4}$  inch apart ; the leaves are  $2\frac{1}{2}$  inches long and 11–12 lines broad, on a petiole 3 lines in length :



the inflorescence is  $\frac{3}{4}$  inch long, spreading to an inch in breadth; the delicate pedicels are 7 lines long, the flowers in bud being  $1\frac{1}{4}$  line in length.

#### CATHEDRA.

This genus has been described in a former volume (2nd ser. vii. 452); and the *Diplocrater* of Mr. Bentham (Kew Journ. Bot. iii. 367) does not appear to me to differ from it. Throughout the *Olacaceæ* there is a general disposition to a vast increment of the calyx, as in *Olaæ*, *Heisteria*, and *Liriosma*; in *Schöpfia* it is the disk that enlarges and becomes adnate to the fruit; but in *Cathedra* not only a considerable growth takes place in both the calyx and the disk, but generally one, and sometimes two of the cupuliform bracts, at first scarcely distinguishable, suddenly swell rapidly after the fall of the corolla, and the growing ovary thus becomes surrounded by 3 or 4 distinct free cups, which are more or less concentric or superimposed. The ripe fruit is not known; but I have represented \* the appearance of these disks when the ovary has attained ten times the size it had at the period of the fall of the corolla. I now add the details of two other species from Spruce's collections:—

1. *Cathedra rubricaulis*, nob., huj. op. 2 ser. vii. 458; Contrib. Bot. i. 15. pl. 2.—Corcovado, Rio de Janeiro.
2. *Cathedra Gardneriana*, nob., loc. cit.
3. *Cathedra acuminata*.—*Diplocrater acuminata*, Benth. loc. cit. p. 367;—ramis glabris, striatellis, ramulis floriferis virgatis, fusco-pruinosis, sub lente brevissime hirtellis; foliis oblongo-ellipticis, summo abrupte attenuatis, acutis, utrinque glabris, submembranaceis, subtus brunnescentibus; nervis paucis, paullo prominentibus, reticulatis, petiolo tenui, subbrevis; floribus minimis, axillaribus, paucis, fasciculatis, breviter pedicellatis.—Barra do Rio Negro, Brasilia Septentr. (Spruce, anno 1850–1851).

A tree 15–20 feet in height; the internodes of the branchlets are  $1-1\frac{1}{2}$  inch apart; the leaves are  $3\frac{1}{2}-4$  inches long,  $1\frac{1}{4}-1\frac{1}{2}$  in. broad, on a petiole 3 lines in length: about 3–6 flowers in each axillary fascicle; pedicels equal to the length of the flower, only  $\frac{1}{4}$  line; disk equal in size to the calyx, both cupuliform; petals 6.

4. *Cathedra crassifolia*, Benth. MSS.;—ramulis glabris, cortice rimoso; foliis oblongo-ellipticis, utrinque acutis, apice anguste attenuatis, subcoriaceis, utrinque opacis et rugulosis, nervis paucis superne immersis, subtus vix prominulis, margine reflexo; floribus paucis, axillaribus, fasciculatis, e nodo promi-

\* 'Contributions to Botany,' plate 2.

nente ortis.—Fluv. Guainia et Casiquiare, Brasil. Septentr. (Spruce, 3514).

Its leaves are  $3\frac{1}{2}$  inches long,  $1\frac{1}{4}$  in. broad, on a petiole 4 lines in length. The flowers are  $1\frac{1}{2}$  line long, on a pedicel of 1 line.

#### LIRIOSMA.

I have enumerated four species belonging to this genus of the *Olacaceæ*, to which five others are now added.

1. *Liriosma candida*, Pöpp. Nov. Gen. iii. 33. tab. 239.
  2. *Liriosma pauciflora*, A. DC. Prodr. viii. 673; Deless. Icon. v. tab. 41; huj. op. 2 ser. viii. 106, cum synonym.—Bahia (Blanchet);—foliis obovatis, imo obtusis, gradatim acutis, glaberrimis, crassiusculis, utrinque pallide viridibus, supra subnitidis, nervis hinc prominentibus, subtus omnino immersis, margine vix reflexo:  $2\frac{1}{4}$  poll. longis,  $1\frac{1}{4}$  poll. latis.—Bahia (Moriciand, 2593).
  3. *Liriosma Gardneriana*, A. DC. loc. cit.; huj. op. 2 ser. viii. 108, cum synonym.; Contrib. Bot. i. 19. pl. 3.—Prov. Ceará Brasilæ (Gardner, 1537).
  4. *Liriosma Velloziana*, A. DC. loc. cit.; huj. op. l. c. 107, cum synonym.; Contrib. Bot. i. 20. pl. 3.—*Dulaccia singularis*, Vell. Flor. Flum. p. 32, et vol. i. tab. 78.—Rio de Janeiro.
  5. *Liriosma pallida*, n. sp.;—foliis oblongis, gradatim angustioribus et longe acuminatis, membranaceis, utrinque pallidis, glaberrimis, reticulatis, petiolo brevi; racemo axillari, brevi, sub-6-floro; pedicello calyce corollaque puberulis.—Prope Panurè, Rio Uaupès, Brasil. Septent. (Spruce, 2572).
- Its branches and branchlets are slender; the pale leaves, of very thin texture, are 2 inches long and 8 lines broad, on a narrow petiole that does not exceed a line in length: the racemes are 5 or 6 lines long, the pedicels are 1 line long, and the flower in bud 2 lines in length; they are somewhat secund.
6. *Liriosma inopiflora*, n. sp.;—foliis ellipticis vel ovatis, imo subacutis, apice obtusatim attenuatis, et mucronulatis, subcoriaceis, utrinque glaberrimis, supra nitidis, in nervis sulcatis, subtus pallidioribus, glauco-lividis, concavis, nervis paucis brevibus sese arcuatis, margine cartilagineo reflexo, petiolo brevi, glabro, transverse rugoso; racemulis brevissimis, axillaribus, floribus 2–3, rarius pluribus, subsecundis, rachi pedicellisque puberulis, calyce et corolla glabris; drupa ovali, apice umbilicata.—Prope San Carlos, Rio Negro, Amazonas (Spruce, 3487).

A species allied to *L. pauciflora*, but with much shorter

racemes and smaller flowers; its leaves are much darker, thicker, more opaque beneath, more acute at base, all (even younger ones) quite glabrous, excepting along the midrib above; nervures shorter, more spreading; calyx and corolla smooth; branchlets virgate, of a golden-yellow colour and puberulous: its leaves are  $3\frac{1}{2}$  inches long,  $1\frac{1}{4}$  inch wide, the petiole being  $1\frac{1}{2}$  line in length; the racemes are 4 lines long, the pedicels 1 line, the flowers before opening 2 lines long; the drupe is 8 lines long and 5 lines in diameter.

7. *Liriosma ovata*, n. sp.;—foliis late ovatis, imo obtusis, prope summum attenuatis, hinc obtusis et emarginatis, crassiusculis, supra lucidis, subtus opacis, fuscis, utrinque glabris, nervis paucis sese arcuatis breviter divergentibus omnino immersis, subtus vix visibilibus, margine tenui reflexo, costa mediana superne pubere, subtus glabra, sulcata, petiolo brevi ruguloso; racemulis brevibus axillaribus glabris, 4–6-floris, floribus minoribus, glabris.—Barra do Rio Negro, Amazonas. (Spruce, in flore, sine numero, coll. 1850–51; in fructu immaturo, No. 1366).

In this species the leaves are  $2\frac{1}{4}$ – $2\frac{3}{4}$  inches long,  $1\frac{3}{8}$ – $1\frac{5}{8}$  inch broad, on a petiole 2 lines in length; the racemes are 3 lines long.

8. *Liriosma acuta*, n. sp.;—ramulis virgatis, strictis, glabris, striatis; foliis distantibus, oblongis, imo valde obtusis, infra medium versus summum gradatim acutis, acuminatis, concoloribus, subpallidis, utrinque opacis, supra glabris, subconvexis, nervis immersis, subtus sub lente sparse puberibus, nervis prominulis, reticulatis, margine tenui revoluto, junioribus minoribus et utrinque viridibus, petiolo brevi; racemulis axillaribus, brevibus, paucifloris. — Rio Negro, Amazonas (Spruce, 1508).

The branchlets are long and virgate, the internodes about 1 inch apart; the leaves 3–4 inches long,  $1\frac{3}{8}$ – $1\frac{5}{8}$  inch broad, on a petiole 2 lines long: the floral racemes, in my specimen, are in a very young state; they are only 3 lines long, both in flower and fruit. The drupe, supported on a very short pedicel, is 11 lines long and 7 lines in diameter; the sarcocarp, in a dried state, is very thin; the putamen is also very thin, marked externally and internally by nine longitudinal lines; the integuments are membranaceous; the albumen is very thick and fleshy, marked by three longitudinal grooves, which terminate at the base in three short hollow spaces, uniting in a long hollow cylindrical cavity in the axis which extends to  $\frac{3}{4}$  of the length of the albumen; in the solid apex, over this space, the minute



embryo is imbedded; the radicle is superior, short, thick, and clavate; the cotyledons are of equal length, but much thinner and narrower.

9. *Liriosma macrophylla*, Bth. MSS.—*Olox macrophylla*, Bth. *Trans. Linn. Soc.* xviii. 678;—ramulis glabris, striatis; foliis lanceolato-oblongis, utrinque acutis, summo gradatim acuminatis, acutissimis, textura tenui, ubique glaberrimis, superne sublucidis, subtus pallidioribus, opacis, nervis paucis sese arcuatis breviter divergentibus, paullo prominentibus, reticulatis, rachi subtus prominulo et sulcato, margine valde reflexo, petiolo brevissimo, crassiusculo, transverse ruguloso; racemis axillaribus, 6–10-floris.—Rio Casiquiare, in Brasilia Septentrionali (Spruce, 3312).

The leaves are  $5\frac{1}{2}$ – $5\frac{3}{4}$  inches long,  $2\frac{1}{2}$ – $2\frac{3}{4}$  inches broad, on a petiole of 2 lines; the raceme is 3–4 lines long; the drupe is 9 lines long, 5 lines in diameter, supported on a pedicel 2 lines in length.

To some of the genera of the  *Icacinaceæ*  formerly described I have to make the following additions:—

#### LERETIA.

1. *Leretia Vellozii*, nob., huj. op. 2 ser. ix. 392; *Contrib. Bot.* i. 62. pl. 7.—*L. cordata*, *Vell. Flor. Flum.* iii. tab. 2.—Rio de Janeiro.
2. *Leretia ampla*, n. sp.;—ramulis angulatis, glaberrimis, cortice laxo, rugoso; foliis majusculis (floralibus minoribus), oblongis, imo obtusis, e medio gradatim acutis, mucronatis, submembranaceis, utrinque glaberrimis, subnitidis, pallescentibus et concoloribus, nervis conspicuis obliquis sese arcuatis subtus prominentibus, valde reticulatis, venis transversalibus, margine integro, petiolo rubro, tereti, striato; paniculis laxis, folio brevioribus, infra axillas oppositifoliis, vel terminalibus, valde ramosis, multifloris, vix pubescentibus; floribus minoribus, petalis extus adpresse pilosis, intus breviter cottoneo- et incano-tomentosis.—Prope San Carlos, Rio Negro, Amazonas (Spruce, 3776).

Its leaves are  $8\frac{1}{2}$  inches long,  $3\frac{3}{4}$  inches broad, on a petiole  $\frac{1}{2}$  inch in length; the floriferous leaves are only half this size, or still smaller. The very branching inflorescence is  $2\frac{1}{2}$  inches broad, as well as long; the flowers in bud are somewhat globose, 1 line in diameter, on short pubescent pedicels.

3. *Leretia nitida*, n. sp.;—ramulis angulatis, glabris, lenticellis

notatis; foliis ellipticis, utrinque acutis, summo attenuatis et hinc interdum obtusis, crassiusculis, ubique glaberrimis, supra intense viridibus, nitidis, infra pallidioribus, nervis obliquis sese arcuatis, infra prominulis, valde reticulatis, margine reflexo, petiolo subbrevis, canaliculato; paniculis axillaribus et terminalibus folio dimidio brevioribus, fulvo-pruinosis, petalis extus pruinosis, intus pilis longis ferrugineo-sericeis donatis. Rio Negro, Amazonas (Spruce, 1528).

Its leaves are 5 inches long,  $1\frac{3}{4}$  inch broad, on a petiole 3 lines in length. The inflorescence is 2 inches long, spreading to a breadth of  $1\frac{1}{2}$  inch; the flowers in bud are  $1\frac{1}{2}$  line long, on pedicels of  $\frac{1}{2}$  a line in length.

#### PORAQUEIBA.

When the structure of this genus was described (*huj. op.* 2 ser. ix. 482), I had not been able to detect any apparent dehiscence of the anther-cells: those in the species of which the diagnosis is given below, were, however, sufficiently ripened to show their mode of opening. I find that in each of the four distant cells a rupture takes place, by one of its margins, along the line of its junction with the connective, as has been correctly described by M. Tulasne, and nearly in the manner I have shown to occur in *Emmotum* (*loc. cit.* x. 177). This genus must therefore be referred to the tribe *Emmoteae* (*loc. cit.* ix. 223). To the generic diagnosis of *Poraqueiba*, as above cited, we must add, to the description of the anthers—

loculis singulatim margine unico a connectivo soluto, hinc rima longitudinali lateraliter dehiscentibus.

1. *Poraqueiba Guianensis*, Aubl., *huj. op.* 2 ser. ix. 483; *Contrib. Bot.* i. 71.—Guiana Gallica.
2. *Poraqueiba Surinamensis*, nob., *ibid.* p. 483; *Contrib. Bot.* i. 72. tab. 10.—Surinam.
3. *Poraqueiba sericea*, Tulasne, *ibid.* p. 484; *Contrib. Bot.* i. 72.—Ega, Amazonas.
4. *Poraqueiba acuminata*, n. sp.;—ramulis cylindricis, tomentillis; foliis ovatis, basi rotundatis vel truncatis, apice subito acuminatis, crassis, coriaceis, superne nitidiusculis, subtus flavido-pruinosis, nervis supra omnino immersis, subtus prominentibus, parallele obliquis, ad marginem vix revolutum arcuatim nexis, venis transversis reticulatis, rachi supra sulcato, subtus valde prominente, petiolo longo crasso canaliculato; racemis axillaribus folio tertio brevioribus, rachi crasso, ramis crassiusculis distantibus, brevibus, divergentibus, floribus fere



séssilibus, hinc agglomerato-spicatis.—Barra do Rio Negro, Amazonas (Spruce, 1748).

This species is distinguished by its thicker and more coriaceous leaves, with their underside and nervures thickly covered by a densely pruinose covering; the nervures above (about eight on each side) are wholly immersed and smooth above, extremely prominent and thick beneath; the main peduncle of the inflorescence is much thicker, and the flowers are perfectly sessile. The leaves are 8–10 inches long,  $4\frac{1}{2}$ – $5\frac{3}{4}$  inches broad, the petiole being 1 inch long and  $\frac{1}{8}$  inch thick: the raceme is  $2\frac{3}{4}$  inches long; its thick branchlets are 6–10 lines long, diverging at nearly a right angle: the flowers, at the period of bursting, are  $1\frac{1}{2}$  line long.

#### EMMOTUM.

To this genus I am enabled to add only partial details of its carpological structure, derived from an examination of Spruce's specimen (No. 1989) of *Emmotum acuminatum*, with which I received a single fruit. This is a drupe of a depressed globular form, 8 lines in diameter, its vertical axis being 5 lines long; its coriaceous sarcocarp, about  $\frac{1}{8}$  inch thick, covers a rugose osseous indehiscent nut of about the same thickness; the latter is 5-celled, three or four of these cells being much smaller, and evidently semi-abortive; the other cell contained no seed, nothing remaining within but the dried and shrivelled integuments.

1. *Emmotum orbiculatum*, nob., *huj. op.* 2 ser. x. 178; *Contrib. Bot.* i. 108.—*Pogopetalum orbiculatum*, *Benth. Linn. Trans.* xviii. 685. tab. 42.—In Brasilia Septentrionali.
2. *Emmotum acuminatum*, nob., *loc. cit.* 178; *Contrib. Bot.* i. 108. tab. 21 B.—*Pogopetalum acuminatum*, *Benth. loc. cit.* 685.—Rio Negro Brasiliæ.
3. *Emmotum fagifolium*, Desv. in *Ham. Prodr.* 29; nob., *loc. cit.* p. 179; *Contrib. Bot.* i. 189. tab. 21 A.—*Pogopetalum acutum*, *Benth. in Hook. Lond. Journ. Bot.* ii. 377.—Guiana Gallica.
4. *Emmotum affine*, nob., *loc. cit.* 180; *Contrib. Bot.* i. 110.—*Pogopetalum affine*, *Planch.*—Brasilia (Sellow).
5. *Emmotum nitens*, nob., *loc. cit.* 180; *Contrib. Bot.* i. 110. tab. 22 A.—*Pogopetalum nitens*, *Benth. loc. cit.* ii. 377.—Brasilia intertropica.
6. *Emmotum glabrum*, Bth. MSS.;—foliis ellipticis, utrinque acutis, apice longe attenuatis, glaberrimis, subcoriaceis, supra fusco-viridibus, subtus pallide ferrugineis, margine revolutis,

nervis omnino immersis, lineis striatis transversis interruptis creberrime parallelis utrinque insculptis, costa media rubella, margine revoluta, petiolo canaliculato; paniculis brevibus, petiolo 2-3-plo longioribus, pedunculo pedicellisque pubescentibus, corolla et calyce glabris, hoc dentibus ciliatis, petalis lanceolatis, carina interna dense lanatis.—Rio Guaimia et Rio Casiquiare in Brasilia Septentrionali (Spruce, 3536).

The leaves are  $3\frac{3}{4}$  inches long,  $1\frac{1}{2}$  inch broad, on a petiole 3 lines in length; the racemes are 6-9 lines long; the flowers in bud  $1\frac{1}{2}$  line long; the petals are clothed internally with dense silky long hairs, springing from the prominent keel; the stamens are somewhat shorter than the petals; the filaments are compressed and glabrous; the two cells of the anthers are separated, and fixed upon the margins of an obcordate connective; the ovary is densely clothed with adpressed white sericeous hairs, surmounted by a glabrous style of equal length\*.

### XXXVIII.—Notes on the *Hydroid Zoophytes*.

By Prof. ALLMAN †.

#### I. *Laomedea tenuis*, n. sp.

A SMALL species of *Laomedea* was found in August last, attached to the fronds of *Laminaria digitata*, dredged from about three fathoms water, off the town of Stromness. It was associated with *L. geniculata*, and, though tolerably abundant, might, from its great delicacy, have been easily overlooked.

I believe it to be an undescribed species, which may be distinguished by the following diagnosis:—

Stem geniculate; polypiferous ramuli having the same diameter as the stem, springing alternately from the geniculations; the entire stem and ramuli distinctly annulated; polype-cells with deeply-cleft margins; polypes very extensile, with 16 or 18 tentacula. Capsules medusiferous, large, cylindrical, with the proximal end conical, and with the remote end broad and truncated.

The present species is nearly allied to *L. lacerata*, which it resembles in its deeply-cleft polype-cells and in the form of its polypes, but must be distinguished from it by its polypiferous ramuli equalling the main stem in thickness, by the form of its capsules, and by their contents, which are here Medusæ, while in *L. lacerata* they are sporosacs.

\* A drawing of this species, with analytical details, will be given in 'Contributions to Botany,' plate 22 B.

† The species described in the present notes formed the subject of a paper read by the author at the late Meeting of the British Association at Aberdeen.